FORM PTO-1449(Modified)

LIST OF PATENTS AND PUBLICATION OF PATENTS AND P

ATTY. DOCKET NO. C1039/7044

SERIAL NO. 09/672,126

APPLICANT Hartmann et al.

FILING DATE September 27, 2000

1636 GROUP 1646

				U.S. PATENT DOCUMENTS			•
Exam Init	Ref Des	Document No.	Date .	Name	Class	Sub Class	FILING DATE If Appropriate
aN	A1	3,906,092	09/16/75	Hilleman et al.	424	89	
	A2	4,469,863	09/04/84	Ts'o et al.	536	24.5	
	A3	5,023,243	06/11/91	Tullis	514	44	
	A4	5,248,670	09/28/93	Draper et al.	514	454	10.
	A5	5,359,052	10/25/94	Stee et al.	536	26.7	**
•	A6	5,512,668	04/30/96	Stec et al.	536	25.33	& CX
	A7	5,585,479	12/17/96	Hoke et al.	536	24.5	
	A8	5,635,363	06/03/97	Altman et al.	435	7.24	TONIA OR
	A9	5,663,153	09/02/97	Hutcherson et al.	514	44	17 2003
	A10	5,723,335	03/03/98	Hutcherson et al.	435	375	920
	A11	5,786,189	07/28/98	Locht et al.	424	200.1	3
	A12	5,849,719	12/15/98	Carson et al.	514	44	6
\neg	A13	5,856,465	01/05/99	Stec et al.	536	25.3	
QN	A14	5,883,237	03/16/99	Stec et al.	536	23.1	
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		Country & Doc. No. (11)	Pub. Date (43)		Class	Sub Class	Translation Yes No
\cap	RI	EP 0302759 D1	07/09/90	Eno			

		Country & Doc. No. (11)	Pub. Date (43)	·	Class	Sub Class	Translat Yes	tion No
QN	Bl	EP 0302758 B1	02/08/89	EPO	Cl2N	15/37		1
an	B2	EP 0174143 B1	11/08/89	EPO	C07K	15/26	 	
an.	B3	WO 91/12811	09/05/91	WIPO	A61K	31/70		
QN	B4	EP 0468520 A2	01/29/92	EPO	A61K	31/70		
BN	B5	WO 92/03456	04/05/92	WIPO	C07H	15/12	 	
an	В6	EP 0092574 B1	04/29/92	EPO	C07H	21/02	 -	
UD	B7	WO 92/18522	10/29/92	WIPO	C07H	21/00		
QN	B8	WO 92/21353	12/10/92	WIPO	A61K	31/70	 	
QN	B9	WO 94/19945	09/15/94	WIPO	AOIN	43/04	 	
QN	B10	WO 95/05853	03/02/95	WIPO	A61K	48/00		+
CN	B11	WO 95/26204	10/05/95	WIPO	A61K	48/00	<u> </u>	
QN	B12	WO 96/02555	02/01/96	WIPO	C07H	21/00		
ON.	B13	WO 96/35782	11/14/96	WIPO	C12N	15/11	 	
an	B14	WO 97/28259	08/07/97	WIPO .	C12N	15/00		
QN	B15	WO 98/14210	04/09/98	WIPO	A61K	39/35	 	┼
QN	B16	WO 98/18810	05/07/98	WIPO	C07H	21/00	 	-} -
MO	B17	WO 98/37919	09/03/98	WIPO	A61K	49/00	 	
an.	B18	WO 98/40100	09/17/98	WIPO	A61K	39/39		
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ORM PT	O-1449(M	odified)	ATTY. DOCKET NO. C1039/7044	SERIAL NO. 09/672,126				
		D PUBLICATIONS FOR APPLICANT'S	APPLICANT Hartmann et al.					
	IFORMATIO	N DISCLOSURE STATEMENT	FILING DATE September 27, 2000	GROUP 1646/216300				
0 1 r	**************************************	(Including Author	OTHER ART , Title, Date, Pertinent Pages, Publication,	Etc.) S. Science 1996 Oct 4;274(5284):94-64				
LIV	Cl S	Altman JD et al. Phenotypic	analysis of antigen-specific T lymphocyte	s. Science 1996 Oct 4;274(5284):94-02				
TRADE	C2		NK activity in murine and human cells by ol 1996 Sep 1;157(5):1840-5.	CpG motifs in oligodeoxynucleotides				
2N	СЗ	Banchereau J and Steinman 19;392(6673):245-52.	Banchereau J and Steinman RM. Dendritic cells and the control of immunity. Nature 1998 Mar 19;392(6673):245-52.					
21/	C4		Beaucage SL and Caruthers MH. Deoxynucleoside phosphoramidites - a new class of key intermediates for deoxypolynucleotide synthesis. <i>Tetrahedron-Lett</i> 1981;22(20):1859-62.					
2N	C5		al of 5-fluorouracil, leucovorin and interfectal carcinoma. <i>Anticancer Drugs</i> 1996 Ju					
24	C6		Cella M et al. Plasmacytoid monocytes migrate to inflamed lymph nodes and produce large amounts of type I interferon. Nat Med 1999 Aug;5(8):919-23.					
211	C7		Chace JH et al. Bacterial DNA-induced NK cell IFN-gamma production is dependent on macrophage secretion of IL-12. Clin Immunol Immunopathol 1997 Aug;84(2):185-93.					
CIRC	Ç8		ells and IFN-alpha-producing cells are two ubsets in human peripheral blood. <i>Immuno</i>					
UK	С9		DNA induces NK cells to produce IFN-ga <i>unol</i> 1996 Jun 15;156(12):4570-5.	mma in vivo and increases the toxicity				
747	C10	Froehler BC et al. Synthesis 1986 Jul 11;14(13):5399-40	of DNA via deoxynucleoside H-phosphor7.	nate intermediates. Nucleic Acids Res				
2N	C11	Gaffney et al. Large-scale o 1988;29(22):2619-22.	ligonucleotide synthesis by the H-phospho	onate method. Tetrahedron Lett				
21/	C12	Galy A et al. Distinct signal 1;95(1):128-37.	s control the hematopoiesis of lymphoid-r	elated dendritic cells. Blood 2000 Jan				
<u> </u>	C13		phosphonates. III. Chemical synthesis of oach. <i>Tetrahedron Lett</i> 1986;27(34):4051-					
an	C14		-phosphonates. IV. Automated solid phase oach. <i>Tetrahedron Lett</i> 1986;27(34):4055-					
an	C15		ha maintenance therapy after cytotoxic ch ne-related Kaposi's sarcoma. <i>J Biol Respo</i>					
QN	C16	Goeddel DV et al. The stru 5;290(5801):20-6.	cture of <u>eig</u> ht distinct cloned human leuko	cyte interferon cDNAs. Nature 1981 M				
(^)a	C17		f oligonucleotides and modified oligonucle	eotides: a review of their synthesis and				

QN

C18

C19

C20

12 and tumor necrosis factor-alpha. Cell Immunol 1996 Jan 10;167(1):72-8.

Gray PW et al. Expression of human immune interferon cDNA in E. coli and monkey cells. Nature 1982 Feb

Grouard G et al. The enigmatic plasmacytoid T cells develop into dendritic cells with interleukin (IL)-3 and

Halpern MD et al. Bacterial DNA induces murine interferon-gamma production by stimulation of interleukin-

properties. Bioconjugate Chem 1990 May/June;1(3):165-87.

CD40-ligand. J Exp Med 1997 Mar 17;185(6):1101-11.

11;295(5849):503-8.

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	FORM P	TO-1449	(Modi	fied)	ATTY. DOCKET NO. C1039/7044	SERIAL NO. 09/672,126					
1	LIST OF	PATENTS	S AND P	UBLICATIONS FOR APPLICANT'S SCLOSURE STATEMENT	APPLICANT Hartmann et al.						
L		IN ORINA	TION DI	SCLOSURE STATEMENT	FILING DATE September 27, 2000	GROUP 16467 16305					
/-	017	(3)	,			CHO					
	DET 18	2003		Halpern MD et al. In vitro in oligomers. Immunopharmaco	nibition of murine IFN gamma production by logy 1995 Feb;29(1):47-52.	y phosphorothioate deoxyguanosine					
	ON PADE	3	-	Hartmann G et al. CpG DNA 1999 May;6(5):893-903.	and LPS induce distinct patterns of activation	on in human monocytes. Gene Ther					
ŀ	97	C23		Hartmann G et al. CpG DNA Proc Natl Acad Sci USA 1999	a potent signal for growth, activation, and a Aug 3;96(16):9305-10.	maturation of human dendritic cells.					
	an	C24		Hartmann G et al. Delineation responses in vitro and in vivo	n of a CpG phosphorothioate oligodeoxynuc. J Immunol 2000 Feb 1,164(3):1617-24.	leotide for activating primate immune					
	QN	C25			and function of a newly identified CnG D	NA motif in human primary B cells. J					
	QN	C26		Hartmann G et al. Specific su oligodeoxynucleotides. Antise	ppression of human tumor necrosis factor-alense Nucleic Acid Drug Dev 1996 Winter,6(lpha synthesis by antisense 4):291-9.					
	QN	C27		Hartmann G et al. Spontaneon monocytes and lymphocytes.	us and cationic lipid-mediated uptake of anti J Pharmacol Exp Ther 1998 May;285(2):92	isense oligonucleotides in human 20-8.					
	QN	C28		Iho S et al. Oligodeoxynucleo	tides containing palindrome sequences with ells to induce IFN-gamma production in vitro	internal SI CaC 21 and 11 at					
	ais	C29		Kimura Y et al. Binding of ol NK cell activity and induce II	Kimura Y et al. Binding of oligoguanylate to scavenger receptors is required for oligonucleotides to augment NK cell activity and induce IFN. J Biochem (Tokyo) 1994 Nov;116(5):991-4.						
	QN	C30		Klinman DM et al. CpG moti	fs present in bacteria DNA rapidly induce ly gamma. <i>Proc Natl Acad Sci USA</i> 1996 Apr	manhanta ta si unta i a la la c					
	NE	C31		Kranzer K et al. CpG-oligode	oxynucleotides enhance T-cell receptor-trigger induction of antigen-presenting cell-deriver	gorod interferen					
	QN	C32			in bacterial DNA trigger direct B-cell activation. Nature 1995 Apr bures and functions of multiligand lipoprotein receptors: macrophage scavenger related protein (LRP). Annu Rev Biochem 1994;63:601-37.						
	an	C33		Krieger M and Herz J. Structure receptors and LDL receptor-re							
-	QN	C34		Kuzel TM et al. Interferon alf J Natl Cancer Inst 1990 Feb 7	a-2a combined with phototherapy in the tres	atment of cutaneous T-cell lymphoma.					
	QN	C35		Lipford GB et al. Poly-guanos affect T-cell activation via an	sine motifs costimulate antigen-reactive CD tigen-presenting cell-derived cytokines. Imn	8 T cells while bacterial CpG-DNA nunology 2000 Sep;101(1):46-52.					
	011	C36		Lyons AB and Parish CR. De May 2;171(1):131-7.	termination of lymphocyte division by flow	cytometry. J Immunol Methods 1994					
	QW	C37		Huit Acua Sci OSA 1993 Apr		·					
	QN	C38		O'Doherty U et al. Dendritic immunostimulatory dendritic 1;178(3):1067-76.	cells freshly isolated from human blood exp cells after culture in monocyte-conditioned	ress CD4 and mature into typical medium. <i>J Exp Med</i> 1993 Sep					
	ON,	C39		Perera F et al. A phase I pilot	study of pelvic radiation and alpha-2A inter ancer. <i>Int J Radiat Oncol Biol Phys</i> 1997 Ja	feron in patients with locally n 15;37(2):297-303.					
	an	C40		Pisetsky DS et al. Stimulation	of in vitro proliferation of murine lymphoc tiol Rep 1993 Oct;18(3):217-21.						

FORM	PTO-1449	(Modified)
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LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO. C1039/7044 SERIAL NO. 09/672,126

APPLICANT Hartmann et al.

GROUP 1646

			Pulendran B et al. Distinct dendritic cell subsets differentially regulate the class of immune response in Sign	
201	E41		Pulendran B et al. Distinct dendritic cell subsets differentially regulate the class of immune response in Proc Natl Acad Sci USA 1999 Feb 2;96(3):1036-41.	
E/J8	2003 ₄₂ 2		Qiu B and Chen M. Treatment of cutaneous T cell lymphoma with low doses of interferon alpha-2b. Chin Med J (Engl) 1996 May; 109(5):404-6.	
Mag e	MEX 43		Ramanathan M et al. Inhibition of interferon-gamma-induced major histocompatibility complex class I expression by certain oligodeoxynucleotides. <i>Transplantation</i> 1994 Feb 27;57(4):612-5.	
20	C44	-	Rissoan M-C et al. Reciprocal control of T helper cell and dendritic cell differentiation. Science 1999 Feb 19;283(5405):1183-6.	
QN	C45		Sato Y et al. Immunostimulatory DNA sequences necessary for effective intradermal gene immunization. Science 1996 Jul 19; 273(5273):352-4.	
QN	C46	1	Siegal F et al. The nature of the principal type 1 interferon-producing cells in human blood. Science 1999 Jun 11;284(5421):1835-7.	
QN	C47		Stec WJ et al. Diastereomers of nucleoside 3'-O-(2-thio-1,3;2-oxathia(selena)phospholanes): building blocks for stereocontrolled synthesis of oligo(nucleoside phosphorothioate)s. J Am Chem Soc 1995;17:12019.	
QN	C48		Sun S et al. Multiple effects of immunostimulatory DNA on T cells and the role of type I interferons. Springer Semin Immunopathol 2000;22(1-2):77-84.	
QN	~ C49		Sun S et al. Type I interferon-mediated stimulation of T cells by CpG DNA. J Exp Med 1998 Dec 21;188(12):2335-42.	
QN	Tanaka Y et al. Natural and synthetic non-peptide antigens recognized by human gamma delta T cells. Natural 1995 May 11;375(6527):155-8.			
21	C51		Thomas R and Lipsky PE. Human peripheral blood dendritic cell subsets. Isolation and characterization of precursor and mature antigen-presenting cells. <i>J Immunol</i> 1994 Nov 1;153(9):4016-28.	
QN	C52		Tokunaga T et al. Antitumor activity of deoxyribonucleic acid fraction from Mycobacterium bovis BCG. I. Isolation, physicochemical characterization, and antitumor activity. J Natl Cancer Inst 1984 Apr;72(4):955-62.	
QN	C53		Tokunaga T et al. A synthetic single-stranded DNA, poly(dG,dC), induces interferon-alpha/beta and -gamma, augments natural killer activity, and suppresses tumor growth. <i>Jpn J Cancer Res</i> 1988 Jun;79(6):682-6.	
QN	C54		Tokunaga T et al. Synthetic oligonucleotides with particular base sequences from the cDNA encoding proteins of Mycobacterium bovis BCG induce interferons and activate natural killer cells. <i>Microbiol Immunol</i> 1992;36(1):55-66.	
QN	C55		Trinchieri G. Biology of natural killer cells. Adv Immunol 1989;47:187-376.	
QN	C56		Uhlmann E and Peyman A. Antisense oligonucleotides: a new therapeutic principle. Chem Rev 1990 Jun;90(4):544-84.	
Qv	C57		Vallin H et al. Anti-double-stranded DNA antibodies and immunostimulatory plasmid DNA in combination mimic the endogenous IFN-alpha inducer in systemic lupus erythematosus. <i>J Immunol</i> 1999 Dec 1;163(11):6306-13.	
an	C58		Wagner RW et al. Potent and selective inhibition of gene expression by an antisense heptanucleotide. Nat Biotechnol 1996 Jul;14(7):840-4.	
00	C59		Wyatt JR et al. Combinatorially selected guanosine-quartet structure is a potent inhibitor of human immunodeficiency virus envelope-mediated cell fusion. <i>Proc Natl Acad Sci USA</i> 1994 Feb 15;91(4):1356-60.	
Or	C60		Yamamoto S et al. DNA from bacteria, but not from vertebrates, induces interferons, activates natural killer cells and inhibits tumor growth. <i>Microbiol Immunol</i> 1992;36(9):983-97.	

FILING DATE September 27, 2000

FORM PTO-1449(Modifi d)	ATTY. DOCKET NO. C1039/7044	SERIAL NO. 09/672,126				
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S	APPLICANT Hartmann et al.					
INFORMATION DISCLOSURE STATEMENT	FILING DATE September 27, 2000	GROUP 1696 1636				
0:18						
	Yamamoto S et al. In vitro augmentation of natural killer cell activity and production of interferon-alpha/beta and -gamma with deoxyribonucleic acid fraction from Mycobacterium bovis BCG. <i>Jpn J Cancer Res</i> 1988 Jul;79(7):866-73.					
Vamamata S et al Unique na	Vamameta S et al Unique nalindramic sequences in synthetic alicanucleotides are required to induce IEN and					

O THE	20036		Yamamoto S et al. In vitro augmentation of natural killer cell activity and production of interferon-alpha/beta and -gamma with deoxyribonucleic acid fraction from Mycobacterium bovis BCG. <i>Jpn J Cancer Res</i> 1988 Jul;79(7):866-73.
CANDEN	AFICATION		Yamamoto S et al. Unique palindromic sequences in synthetic oligonucleotides are required to induce IFN and augment IFN-mediated natural killer activity. <i>J Immunol</i> 1992 Jun 15;148(12):4072-6.
QN	- C63	·	Yamamoto T et al. Ability of oligonucleotides with certain palindromes to induce interferon-production and augment natural killer cell activity is associated with their base length. <i>Antisense Res Dev-</i> 1994 · Summer;4(2):119-22.
an	C64		Yi AK et al. Rapid immune activation by CpG motifs in bacterial DNA. Systemic induction of IL-6 transcription through an antioxidant-sensitive pathway. <i>J Immunol</i> 1996 Dec 15;157(12):5394-402.
QN	C65		Zhong RK et al. Human blood dendritic cell-like B cells isolated by the 5G9 monoclonal antibody reactive with a novel 220-kDa antigen. <i>J Immunol</i> 1999 Aug 1;163(3):1354-62.

* a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Senal No. ______, filed ______, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

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FORM PTO-1449/A and B (Modified) DEC 1 5 2003	APPLICATION NO.: 09/672,126	ATTY. DOCKET NO.: C1039.70044US00	
INFORMATION DISCLOSURE	LING DATE: September 27, 2000	CONFIRMATION NO.: 6887	
STATEMENT BY APPLICANT	APPLICANT: Hartmann et al.		
Sheet 1 of 1	GROUP ART UNIT: 1636	EXAMINER: Nguyen, Q.	

U.S. PATENT DOCUMENTS

	1	Han. D		PATENT DOCUMENTS	Date of Publication or of issue	
Examiner's	Cite	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	of Cited Document	
Initials	No.	Number	Kind Code	Document	MM-DD-YYYY	
an	A21	2003/0055014	A1	Bratzler	03-20-2002	
QN	A22	2002/0091097	A1	Bratzler et al.	07-11-2002	
	A23	2002/0164341	A 1	Davis et al.	11-07-2002	
QN	A24	2002/0165178	A 1	Schetter et al.	11-07-2002	
RIV	A25	2002/0198165	Al	Bratzler et al.	12-26-2002	
QN	A26	2003/0026801	Al	Weiner et al.	02-06-2003	
	A27	2003/0050261	Al	Krieg et al.	03-13-2003	
NV	A28	2003/0050263	Al	Krieg et al.	03-13-2003	
an	A29	2003/0050268	Al	Krieg et al.	03-13-2003	
CN	A30	2003/0091599	Al	Davis et al.	05-15-2003	
an	A31	2003/0100527	Al	Krieg et al.	05-29-2003	
an	A32	2003/0104523	Al	Lipford et al.	06-05-2003	
QNI	A33	2003/0139364	Al	Krieg et al.	07-24-2003	
00	A34	2003/0148976	Αl	Krieg et al.	08-07-2003	
Q.W.	A35	2003/0148316	Al	Lipford et al.	08-07-2003	
(20)	A36	2003/0166001	A1	Lipford	09-04-2003	
an	A37	2003/0181406	A1	Schetter et al.	09-25-2003	
an	A38	2003/0191079	A1	Krieg et al.	10-09-2003	

FOREIGN PATENT DOCUMENTS

Examiner's	Cite	For	eign Patent Docum	nent	Name of Patentee or Applicant of Cited	Date of Publication of	Translation
Initials	No.	Office/ Country	Number	Kind Code	Document (not necessary)	Cited Document MM-DD-YYYY	(Y/N)
an	B32	wo	02/069369	A2		09-06-2002	

OTHER ART — NON PATENT LITERATURE DOCUMENTS

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Examiner's	Cite	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item		
Initials	No	(book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s),	(Ÿ/N)	
		publisher, city and/or country where published.		
QN,	C146	LEE SW et al., Effects of a hexameric deoxyriboguanosine run conjugation into CpG		
		oligodeoxynucleotides on their immunostimulatory potentials. <i>J Immunol</i> . 2000 Oct 1;165(7):3631-9.		
QN	C147	VERTHELYI D et al., Human peripheral blood cells differentially recognize and respond to two		
		distinct CpG motifs. J Immunol. 2001 Feb 15;166(4):2372-7.	-	

EXAMINER	DATE CONSIDERED
- Jun Poren	311/104

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

^{*}a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. ___, filed ___, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation-in-part, and divisional applications).